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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/023,643	12/21/2001	Timothy Harris Kuhl	123081-339668 (T01215-008)	6337
27155	7590	12/13/2005	EXAMINER	
MCCARTHY TETRAULT LLP BOX 48, SUITE 4700, 66WELLINGTON STREET WEST TORONTO, ON M5K 1E6 CANADA			SCHEIBEL, ROBERT C	
			ART UNIT	PAPER NUMBER
			2666	
DATE MAILED: 12/13/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/023,643	KUHLE ET AL.	
	Examiner	Art Unit	
	Robert C. Scheibel	2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/12/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims **3-11 and 14-23** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims **3, 7, 11, 14, 19, and 23** recite the limitation "said value of said another transmission parameter" in lines 6, 3, 9, 6, 3, and 8-9, respectively. There is insufficient antecedent basis for this limitation in the claim. This rejection can be overcome by changing the limitation to be "said *class of service value* of said another transmission parameter"

Claims **9 and 21** recite the limitation "said value of said drop precedence" in lines 2 and 1-2, respectively. There is insufficient antecedent basis for this limitation in the claim.

Claims **4-6, 10, 15-18, 20, and 22** are rejected as they depend from one or more of the indefinite claims described above.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

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international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims **1-3, and, 12-14** are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,631,122 to Arunachalam et al.

Regarding claims **1 and 12**, Arunachalam discloses a method of translating a set of transmission parameters related to a first transmission protocol from said first transmission protocol to a second transmission protocol for a data element being sent on a connection from a first communication network (the wireline network – see lines 54-57 of column 7) utilizing said first transmission protocol (IP in the example) to a second communication network (the wireless network – see lines 54-57 of column 7) utilizing said second transmission protocol (the wireless protocol), said method comprising: mapping a first parameter (ToS or DS byte) from said set of transmission parameters to a class of service value for said connection (see lines 1-6 of column 8); and mapping said class of service value and a second parameter (the LFI) from said set of transmission parameters to another parameter (the “address of the resources allocated” – see lines 47-52 of column 9) for said second transmission protocol.

Regarding claims **2 and 13**, Arunachalam discloses the limitation that said first parameter is a quality of service parameter (the ToS/DS byte is clearly a quality of service parameter) for said connection in said first communication network and said second parameter is a priority rating for said data element (the LFI is a priority rating in the sense that it affects the priority queuing algorithm described in lines 8-14 of column 10; it is clear from lines 2-4 of column 10 that the physical resources are shared among flows (by the queuing algorithm) and the LFI

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identifies the flow and thus the priority to be given the flow in competing for these shared resources).

Regarding claims **3 and 14**, Arunachalam discloses the limitation of converting said data element of said connection from at least one first data element associated with said first transmission protocol to a second data element associated with said second transmission protocol in that the IP packets are clearly converted to radio link packets prior to transmission in the radio network. Arunachalam also discloses the limitation of associating a value of said another transmission parameter with said second data element in that the physical resource (the supplemental channel – see lines 2-3 of column 10) must be associated with the data element (the packet) in order to properly transmit it on the wireless network.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims **4-6 and 15-17** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,631,122 to Arunachalam et al in view of U.S. Patent 6,633,571 to Sakamoto et al.

Regarding claims **4 and 15**, Arunachalam discloses all the limitations of parent claims 3 and 14 as discussed in the rejection under 35 U.S.C. 102(e) above.

Arunachalam does not disclose expressly the limitation of claims 4 and 15 that the second parameter indicates drop precedence and the another parameter indicates quality of service provisioning and drop precedence. However, Sakamoto discloses in one embodiment, translating quality of service parameters between an ATM network and an MPLS network. See figure 13 for example; lines 27-31 of column 3 and lines 40-42 of column 3 indicate that the VPN is carried over one or more MPLS networks. In figure 13, it is clear that the second parameter of the claims is disclosed in the CLP parameter which clearly indicates drop precedence. The table clearly shows this parameter being mapped to another parameter (QoS 305) which is clearly indicates quality of service provisioning for the connection and is tied to the drop precedence as it is based on the CLP parameter in the ATM header.

Arunachalam and Sakamoto are analogous art because they are from the same field of endeavor of quality of service mapping among heterogeneous networks. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Arunachalam to translate between ATM and MPLS networks and thus use the parameters indicated in Sakamoto. The motivation for doing so would have been to provide VPNs using MPLS as a means of decreasing cost (see lines 40-47 of column 1 and lines 55-66 of column 1).

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Therefore, it would have been obvious to combine Sakamoto with Arunachalam for the benefit of providing VPNs as a reduced cost alternative to leased lines to obtain the invention as specified in claims 4 and 15.

Regarding claims **5 and 16**, the combination of Arunachalam and Sakamoto discussed above discloses the limitation that the second communication network is an MPLS network, the second transmission protocol is a MPLS transmission protocol and the second data element is a MPLS frame. See lines 27-31 of column 3 and lines 40-42 of column 3, which indicate that the VPN is carried over one or more MPLS networks.

Regarding claims **6 and 17**, the combination of Arunachalam and Sakamoto discussed above discloses the limitation that the first communication network is an ATM network, the first transmission protocol is an ATM transmission protocol and each of the at least one first data element is an ATM cell. See figure 13 and lines 14-19 of column 9 indicating that the input side is ATM.

8. Claims **7, 11, and 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,631,122 to Arunachalam et al in view of U.S. Patent 6,633,571 to Sakamoto et al and in further view of U.S. Patent Application Publication 2002/0131408 to Hsu et al.

Regarding claims **11 and 23**, Arunachalam et al discloses the limitation of parent claims 3 and 14 as discussed in the rejection under 35 U.S.C. 102(e) above. Arunachalam does not disclose expressly the limitations of claims 11 and 23. However, Sakamoto discloses in one embodiment, translating quality of service parameters between an ATM network and an MPLS network. See figure 13 for example; lines 27-31 of column 3 and lines 40-42 of column 3

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indicate that the VPN is carried over one or more MPLS networks. Sakamoto the limitation that the second communication network is an MPLS network, the second transmission protocol is a MPLS transmission protocol and the second data element is a MPLS frame. See lines 27-31 of column 3 and lines 40-42 of column 3, which indicate that the VPN is carried over one or more MPLS networks. Sakamoto discloses the limitation that the first communication network is an ATM network, the first transmission protocol is an ATM transmission protocol and each of the at least one first data element is an ATM cell. See figure 13 and lines 14-19 of column 9 indicating that the input side is ATM. In figure 13, it is clear that the second parameter of the claims is disclosed in the CLP parameter which clearly indicates drop precedence. The table clearly shows this parameter being mapped to another parameter (QoS 305) which is clearly indicates quality of service provisioning for the connection and is tied to the drop precedence as it is based on the CLP parameter in the ATM header. Arunachalam and Sakamoto are analogous art because they are from the same field of endeavor of quality of service mapping among heterogeneous networks. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Arunachalam to translate between ATM and MPLS networks and thus use the parameters indicated in Sakamoto. The motivation for doing so would have been to provide VPNs using MPLS as a means of decreasing cost (see lines 40-47 of column 1 and lines 55-66 of column 1).

However, the combination of Arunachalam and Sakamoto above does not disclose expressly the limitation that the MPLS experimental field is used to carry the another parameter which indicates the drop precedence. However, Hsu discloses this limitation in lines 11-12 of paragraph 34 on page 3. Hsu and Arunachalam, modified, are analogous art because they are

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from the same field of endeavor of mapping protocols over MPLS networks. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Arunachalam, modified, to use the experimental field to send the QoS value indicating drop precedence. The motivation for doing so would have been to properly conform to MPLS standards and thus make the device operable with other MPLS standard device as suggested by Hsu in lines 11-12 of paragraph 34 on page 3. Therefore, it would have been obvious to combine Hsu with Arunachalam, modified, for the benefit of better interoperability to obtain the invention as specified in claims 11 and 23.

Regarding claim 7, Arunachalam, as modified above, discloses the limitation of parent claim 6 as discussed in the rejection under 35 U.S.C. 103(a) above. Arunachalam does not disclose expressly the limitations of claim 7. However, the combination of Arunachalam and Sakamoto above does not disclose expressly the limitation that the MPLS experimental field is used to carry the another parameter which indicates the drop precedence. However, Hsu discloses this limitation in lines 11-12 of paragraph 34 on page 3. Hsu and Arunachalam, modified, are analogous art because they are from the same field of endeavor of mapping protocols over MPLS networks. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Arunachalam, modified, to use the experimental field to send the QoS value indicating drop precedence. The motivation for doing so would have been to properly conform to MPLS standards and thus make the device operable with other MPLS standard device as suggested by Hsu in lines 11-12 of paragraph 34 on page 3. Therefore, it would have been obvious to combine Hsu with Arunachalam, modified, for the benefit of better interoperability to obtain the invention as specified in claim 7.

Allowable Subject Matter

9. Claims **8-10 and 18-22** would be allowable if rewritten to overcome the rejections under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent Application Publication 2002/0136223 to Ho discloses a method for interworking PNNI with MPLS. U.S. Patent 6,795,445 to Kabie et al discloses hierarchical bandwidth management in multiservice networks. U.S. Patent 6,693,912 to Wang discloses a network interconnecting apparatus and an active quality-of-service mapping method. U.S. Patent Application Publication 2001/0049739 to Wakayama et al discloses a method for interworking between MPLS and non-MPLS networks. U.S. Patent 6,791,985 to Ashwood-Smith et al discloses a method of ATM transport over MPLS. U.S. Patent Application Publication 2003/0039246 to Guo et al discloses an IP/MPLS-based transport scheme in 3G radio networks.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert C. Scheibel whose telephone number is 571-272-3169. The examiner can normally be reached on Monday and Thursday from 6:30-5:00 Eastern Time.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RCS 12-10-05
Robert C. Scheibel
Examiner
Art Unit 2666

[Signature]
[Faint stamp]